

## REPORT

# INFORMATION REPORT

**CONFIDENTIAL**

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THIS IS UNEVALUATED INFORMATION FOR THE RESEARCH  
USE OF TRAINED INTELLIGENCE ANALYSTS 50X1

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- L V 3      Tools were to be ready by the beginning of April.

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CENTRAL INTELLIGENCE AGENCY

-2-

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5 D 21      Triangular cathode  
 Three tubes with faulty cathodes were produced. The emission and the adhesive quality of the cathode paste were poor.

L G 11      Nine tubes were pumped void of air; of these, three were not air-tight, one had weak emission, two were poorly insulated, the filament of one burned out, and two were not yet tested as of March 1948. Fourteen more tubes were ready for the evacuation of air.

Eight-cavity (or slot) magnetron  
 Construction work was under way and test models had been tried out.

Flicker diode (Rauschdiode): 3 cm.  
 No work begun as of March 1948.

3.      Status of work in Department 111 (tube development):

Plan #33      Six-centimeter triode  
 One test model had been produced, but its ceramic parts were not air-tight. Other models were shortly to be completed. Difficulties had arisen in the production of filaments.

Plan #34      LD 6 - 20 cm.  
 Five assemblies were delivered and others were on the way.

Plan #55      Capacity-balancing apparatus (Kapazitätsabgleichapparat)  
 Construction was under way.

Plan #66      Tunable transmitter: 3 - 12 cm.  
 Preliminary experiments with LD 12 were undertaken.

Plan #04      Emission-measuring bench  
 Assembly has been completed; testing was held up because of the breakdown of the impulse generator.

Plan #03      Feeler device (Tastgerät) 5 D 21  
 Completed.

5 D 21      Triangular cathode  
 Eight tubes were prepared but were found to be faulty because the grids had not been properly cleaned. Further difficulties were encountered in the poor adhesive quality of the cathode paste.

Plan #06      LG 11  
 Fourteen usable tubes were constructed and more tubes were in the process of manufacture. Four tubes were delivered to Dr. Schüller so that he might use them to improve his testing apparatus.

Plan #09      Metal ceramic bolometer  
 Sixteen units were delivered for soldering; 500 heads were in the process of construction. The first bolometer was expected to be ready for operation in March 1948.

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CENTRAL INTELLIGENCE AGENCY

-3-

- Plan #73-1-2 Flicker diode (Rauschdiode): 10 cm.  
Experiments were conducted with directly-heated cathodes. One diode with this type of cathode was put into production. Devices effecting the heating of cathodes indirectly had not yet been delivered from the laboratory. Theoretical studies of the speed of the electrons passing through the apparatus were in progress.
- Plan #73-2-2 Flicker diode (Rauschdiode): 3 cm.  
No work undertaken as of March 1948.
- Plan #07 Eight-cavity magnetron  
The first tubes were expected to be completed by the end of May 1948.

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